[CLAIMS]

[Claim 1]

An apparatus for extracting the representative still images from Moving Picture Experts Group (MPEG) video, comprising:

a video curve generation unit for calculating distances between adjacent frames of all intra frames of input video and generating a video curve that is a cumulative curve of the distances;

a video curve division unit for dividing the video curve into a certain number of segments;

a still image selection unit for selecting video images corresponding to certain points of the divided video curve as representative still images; and

a video output unit for outputting the still images selected by the still image generation unit.

[Claim 2]

The apparatus according to claim 1, further comprising a user requirement input unit for inputting user requirement to divide the video curve into a certain number of segments.

[Claim 3]

The apparatus according to claim 1, wherein the video curve generation unit comprises:

an intra frame selection unit for selecting an intra frame from the input video;

at least one Y picture selection unit for selecting only Direct Current (DC) coefficients from Discrete Cosine Transform (DCT) coefficients of a Y picture on the selected intra frame;

at least one cumulative DC histogram generation unit for extracting a cumulative histogram of the DC coefficients;

at least one frame distance generation unit for calculating a maximum distance between cumulative histograms of adjacent intra frames and determining the maximum distance to be a distance between two adjacent frames; and

a cumulative frame distance histogram generation unit for acquiring the video curve, that is, a cumulative curve, from the distance between the adjacent frames of the selected intra frames when the distance between the adjacent frames is calculated through the Y picture selection unit, the cumulative DC histogram generation unit and the frame distance generation unit.

[Claim 4]

A method of extracting the representative still images from MPEG video, comprising the steps of:

generating a video curve, that is, a cumulative curve

of distances between adjacent frames of all intra frames of input video, by calculating the distances between the frames;

dividing the video curve into a certain number of segments;

selecting video images corresponding to certain points of the divided video curve as the representative still images; and

outputting all or some of the selected still images.

[Claim 5]

The method according to claim 4, wherein said step of generating the video curve comprises the steps of:

selecting an intra frame of the input video;

selecting only DC coefficients from DCT coefficients of a Y picture on the selected intra frame;

extracting a cumulative histogram of the DC coefficients;

calculating a maximum distance between cumulative histograms of adjacent intra frames and determining the maximum distance to be a distance between two neighboring frames; and

acquiring the video curve, that is, a cumulative curve of distances between neighboring frames of all selected intra frames, by calculating the distances between the adjacent frames.